

Aachen Institute for Advanced Study in Computational Engineering Science (AICES), RWTH Aachen University has one **immediate** opening for

Postdoc Position in Nano-scale Heat Transfer (electron-phonon coupling)

Job Description and Qualifications

The **computational** research involved in this position is **electron-phonon coupling** at the interface of nanomaterials and energy nanotechnology. The potential topics include, but not limited to, **thermoelectrics, thermal management, phase change materials**.

The candidate should have a PhD Degree in Physics or Engineering (preferably Mechanical Engineering, Materials Science and Engineering or Nanoengineering) from an internationally recognized institution or university. Background in atomistic simulation such as DFT / *ab initio* calculations or classical molecular dynamics, or multi-scale modeling is required. The candidate should be capable of calculating electronic or phononic transport properties of nanomaterials. Previous experiences of multi-scale modeling or using some atomistic simulation packages, including but not limited to VASP, CASTEP, SIESTA, QUANTUMESPRESSO, CPMD, and LAMMPS (MD), are strong advantages. The salary will be competitive, according to the standard policy and salary rates of RWTH Aachen University. The initial contract will be **one year** and can be extended upon further funding budget. Candidates should have the ability to think creatively with high motivation and have an excellent **English** written ability and excellent communication skills in general. German language is not required.

Additional Notes

The starting date is as soon as mutually possible. Applicants are encouraged to refer to the following webpage for the research interests of the principal investigator.

Interested candidates may send a complete CV including list of publications and a list of at least two (2) references with contact information to (all application materials must be in English):

Prof. Dr.-Ing Ming Hu

Institute of Mineral Engineering (GHI)

Division of Materials Science and Engineering

Faculty of Georesources and Materials Engineering

Joint with Aachen Institute for Advanced Study in Computational Engineering Science (AICES)

RWTH Aachen University

Mauerstrasse 5, 52064 Aachen, Germany

E-Mail: hum@ghi.rwth-aachen.de

Profile of the principle investigator: <https://www.ghi.rwth-aachen.de/www/pages/simulation>

<http://www.aices.rwth-aachen.de/people/hu>